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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,765	05/10/2006	Robert Jochemsen	NL031407	6258
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EXAMINER				
LOONAN, ERIC T				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/595,765

**Applicant(s)**

JOICHEMSEN ET AL.

**Examiner**

ERIC LOONAN

**Art Unit**

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 May 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 10 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This Office Action is based on application 10/595,765 filed 10 May 2006. **Claims 1-16**, as originally filed, are currently pending and have been considered below.

#### *Claim Objections*

1. **Claims 3 and 4** objected to because of the following informalities: The claim language is not terminated by a period. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 101*

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. **Claim 14** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter and considered software *per se*.

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "non-functional descriptive material." Both types of "descriptive material" are non-statutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-

readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

4. The examiner notes, as a part of the official record, that the invention of **Claim 15** recites a "record carrier". Page 6, Lines 8-15 of applicant's specification defines a ROM as an embodiment of a record carrier. The specification further states that "ROM 126 can be implemented in various ways: solid state ROM, EEPROM, a magnetic data carrier, an optical data carrier or any other carrier". Each implementation of a ROM in the specification constitutes a machine or manufacture, therefore the examiner concludes that a "record carrier" or "any other carrier" would also represent a machine or manufacture (and not a carrier wave or any form of signal that is considered non-statutory under the 101 statute).

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-2, and 5-16** are rejected under 35 U.S.C. 102(b) as being anticipated by Vishlitzky et al (US Patent 5,737,747) hereinafter known as Vishlitzky.

7. **Claim 1:** Vishlitzky teaches a method of handling a group of at least one data object by issuing a data handling request to be processed by a storage device organised in allocation units by execution of at least one storage device request in a pre-determined data handling period, the method comprising the steps of: a) determining the number of data objects to be handled in the data handling period (Col 12, Line 58); b) determining an upper boundary for the number of allocation units involved for the data handling request (Col 12, Line 56; bandwidth); c) determining an upper boundary for the number of storage device requests by multiplying the number of data handling requests as determined in step a) and the upper boundary of the number of allocation units involved (Col 12, Line 60); d) determining an upper boundary for an amount of time consumed by execution of the data handling request for handling the data objects during the data handling period by determining the amount of time needed for execution of the number of storage device requests as determined in the previous step (Col 12, Lines 51-54); e) reserving an amount of time as determined in the previous step in a data handling period for execution of the storage device requests (Col 12, Lines 61-65); and f) handling the data objects by executing the storage device requests (it is inherent in the scheduling art for a task scheduler to execute a task after reserving time for execution of the task).

8. **Claim 2:** Vishlitzky teaches a method according to claim 1, wherein a) the maximum size of the data objects is substantially smaller than the size of allocation units (Col 14, Lines 24-36); b) the data objects are stored non-contiguously at a substantially equal logic distance from each other such that multiple data objects can be

stored in one allocation unit (Col 10, Lines 38-39); c) the step of determining an upper boundary for the number of allocation units involved per data handling request is replaced by the step of determining an upper boundary of the number of data objects determined in step a) of claim 1 spaced at the substantially equal logic distance that is stored fragmented (Col 10, Lines 40-42); and d) the step of determining an upper boundary for the number of storage device requests is replaced by the step of taking the sum of the number of data handling requests and the number of data objects determined in step e) of this claim (Col 10, Lines 40-42; Col 12, Lines 61-65).

9. **Claim 5:** Vishlitzky teaches a method according to claim 1, wherein the data objects are video frames comprised by a stream of audiovisual data (Col 15, Lines 62-65).

10. **Claim 6:** Vishlitzky teaches a method according to claim 5, wherein the stream of audio-visual data comprises inter-coded and intra-coded frames (Col 15, Line 65).

11. **Claim 7:** Vishlitzky teaches a method according to claim 6, wherein the multiple data objects to which the data handling requests are related are at least some of the intra-coded frames (Col 15, Lines 51-60).

12. **Claim 8:** Vishlitzky teaches a method according to claim 1, wherein step d) comprises the step of multiplying the upper boundary for the number of storage device requests by an amount of time consumed by a storage device request (Col 9, Lines 60-67; Col 12, Lines 55-57).

13. **Claim 9:** Vishlitzky teaches a method according to claim 8, wherein the amount of time is pre-determined (Col 12, Lines 55-57).

14. **Claim 10:** Vishlitzky teaches a method according to claim 1, wherein the storage device is a disk drive (Col 1, Lines 32-33) and the determination of the upper bound for the amount of time further takes into account at least one of the following parameters: a) the amount of time required for one revolution of a disk; b) the seek time of a pick-up unit of the disk drive to a location on a disk where a data object is located to which the data handling request is aimed; and c) the time needed to retrieve the data object to which the data handling request is aimed (Col 14, Lines 7-23).

15. **Claim 11:** Vishlitzky teaches a method according to claim 2, wherein the storage device is a disk drive (Col 1, Lines 32-33) and the determination of the upper bound for the amount of time further takes into account at least one of the following parameters: a) the amount of time required for one revolution of a disk; b) the seek time of a pick-up unit of the disk drive to a first location on a disk where a first data object is located to which the data handling request is aimed; and e) the time needed to retrieve the data object to which the first data handling request is aimed; and d) the time needed for the pick-up unit to move from the first location on the disk to a second location on the disk where a second, subsequent data object is located to which the data handling request is aimed (Col 14, Lines 7-23).

16. **Claim 12:** Vishlitzky teaches a method according to claim 1, wherein the determination of the upper boundary for the number of allocation units involved per data handling requests comprises the step of dividing the size of the data object by the size of one allocation unit (Col 9, Lines 49-51; Col 12, Lines 55-57).

17. **Claim 13:** Vishlitzky teaches an apparatus for handling a group of at least one data object by a data handling request to be processed by at least one storage device request handled in data handling periods, the data handling to be performed by a storage device organised in allocation units, the apparatus comprising a central processing unit conceived to: a) determine the number of data objects to be handled per data handling period (Col 12, Line 58); b) determine an upper boundary for the number of allocation units involved per data handling request (Col 12, Line 56; bandwidth); c) determine an upper boundary for the number of storage device requests by multiplying the number of data handling requests by the upper boundary of the number of allocation units involved (Col 12, Line 60); d) determine an upper boundary for an amount of time consumed by execution of the storage device requests for handling the data objects during one data handling period by multiplying the upper boundary for the number of storage device requests by an amount of time consumed by a storage device request (Col 12, Lines 51-54); e) reserve an amount of time as determined in the previous step in a data handling period for execution of the storage device requests (Col 12, Lines 61-65); and f) handle the data objects by executing the storage device requests (it is inherent in the scheduling art for a task scheduler to execute a task after reserving time for execution of the task).

18. **Claim 14:** Vishlitzky teaches a computer programme product enabling a computer to be programmed to execute the method according to claim 1 (it is inherent in the scheduling art that a scheduler is a computer program product).



19. **Claim 15:** Vishlitzky teaches a record carrier carrying computer programme product according to claim 14 (it is inherent in the scheduling art that a scheduler can be stored on a record carrier).
20. **Claim 16:** Vishlitzky teaches a programmed computer enabled to execute the method according to claim 1 (it is inherent in the scheduling art that a scheduler can be enabled on programmed computer).

***Allowable Subject Matter***

21. **Claims 3 and 4** are allowable over prior art.

***Conclusion***

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC LOONAN whose telephone number is (571)272-6994. The examiner can normally be reached on Monday-Friday, 7:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reginald Bragdon can be reached on (571) 272-4204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2189

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Loonan/  
Examiner, Art Unit 2189

/Reginald G. Bragdon/  
Supervisory Patent Examiner, Art Unit 2189